



MARYLAND Department of Health

Larry Hogan, Governor · Boyd Rutherford, Lt. Governor · Dennis Schrader, Secretary

November 09, 2017

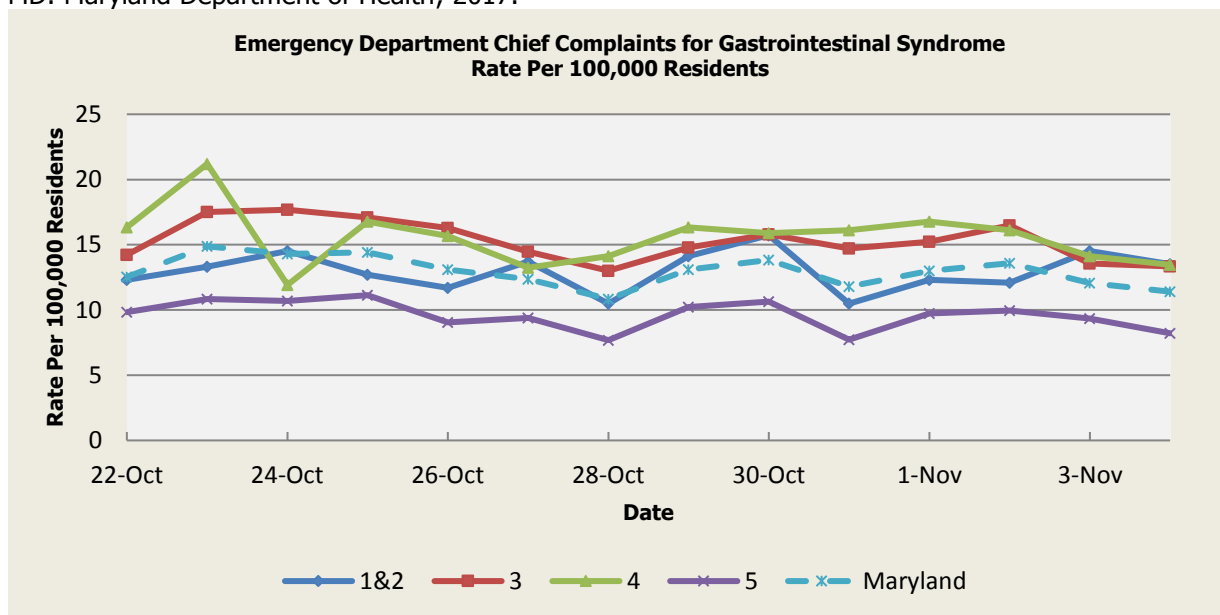
Public Health Preparedness and Situational Awareness Report: #2017:44 Reporting for the week ending 11/04/17 (MMWR Week #44)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: No Active Alerts
Maryland: Normal (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

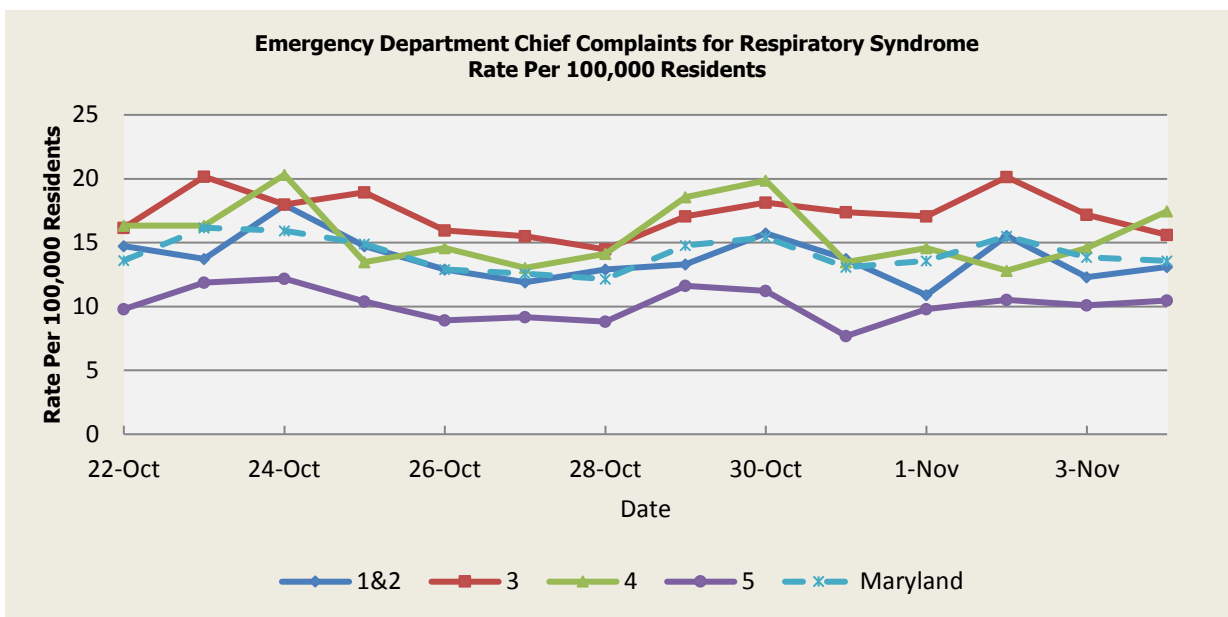
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics): Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census. Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE). Baltimore, MD: Maryland Department of Health; 2017.



There were four (4) Gastrointestinal Syndrome outbreaks reported this week: one (1) outbreak of Gastroenteritis in an Assisted Living Facility (Region 5); one (1) outbreak of Gastroenteritis associated with a School (Region 3), and two (2) outbreaks of Gastroenteritis/Foodborne associated with Restaurants (Region 4/Out-of-State).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.06	14.11	14.41	9.62	12.24
Median Rate*	12.91	14.80	15.02	10.22	12.95

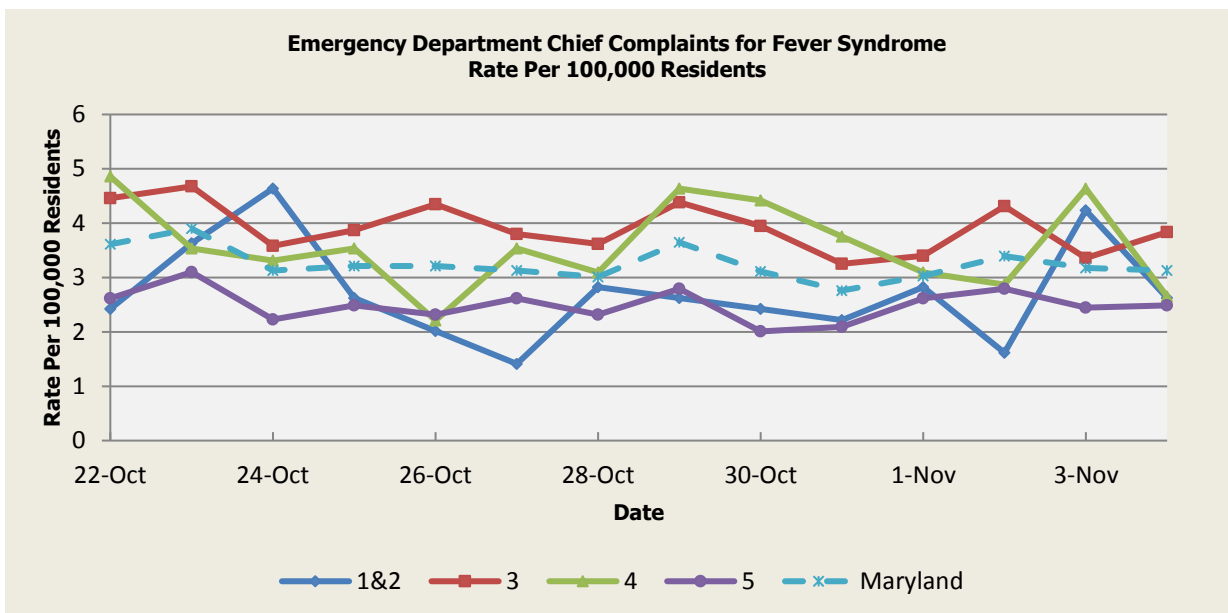
* Per 100,000 Residents



There were two (2) Respiratory Syndrome outbreaks reported this week: one (1) outbreak of ILI associated with a School (Region 4), one (1) outbreak of Pneumonia in an Assisted Living Facility (Region 3).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.26	13.50	13.40	9.30	11.70
Median Rate*	11.70	13.88	13.91	9.65	12.05

* Per 100,000 Residents

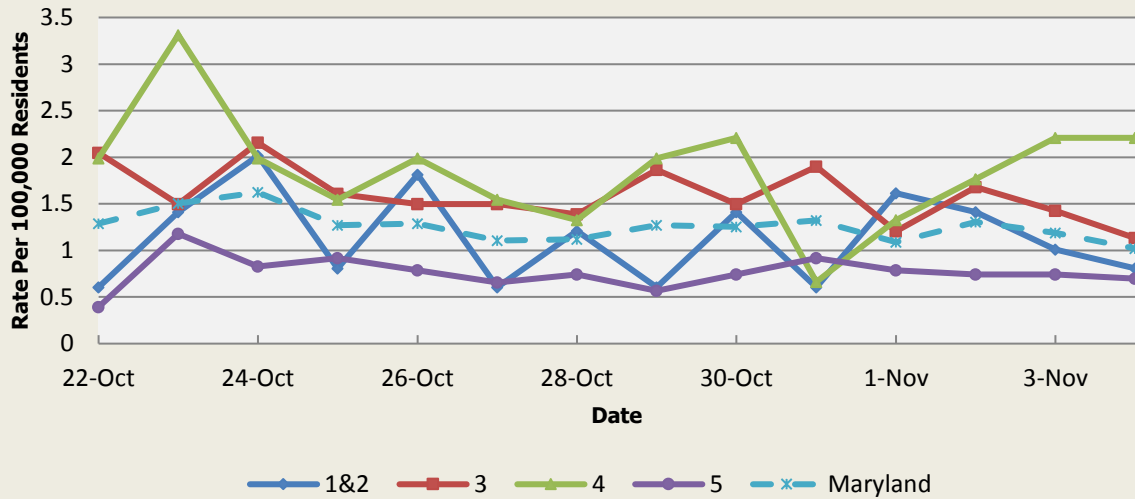


There were no Fever Syndrome outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	2.83	3.62	3.72	2.88	3.28
Median Rate*	2.82	3.76	3.75	2.97	3.40

Per 100,000 Residents

Emergency Department Chief Complaints for Localized Lesion Syndrome Rate Per 100,000 Residents



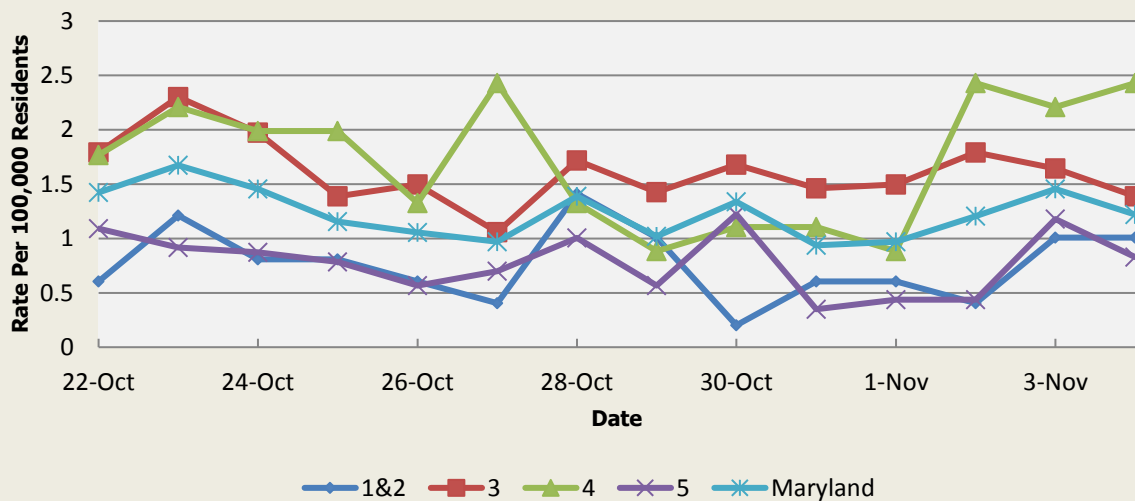
There were no Localized Lesion Syndrome outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.98	1.77	1.89	0.90	1.38
Median Rate*	1.01	1.83	1.99	0.92	1.42

* Per 100,000 Residents

Emergency Department Chief Complaints for Rash Syndrome Rate Per 100,000 Residents

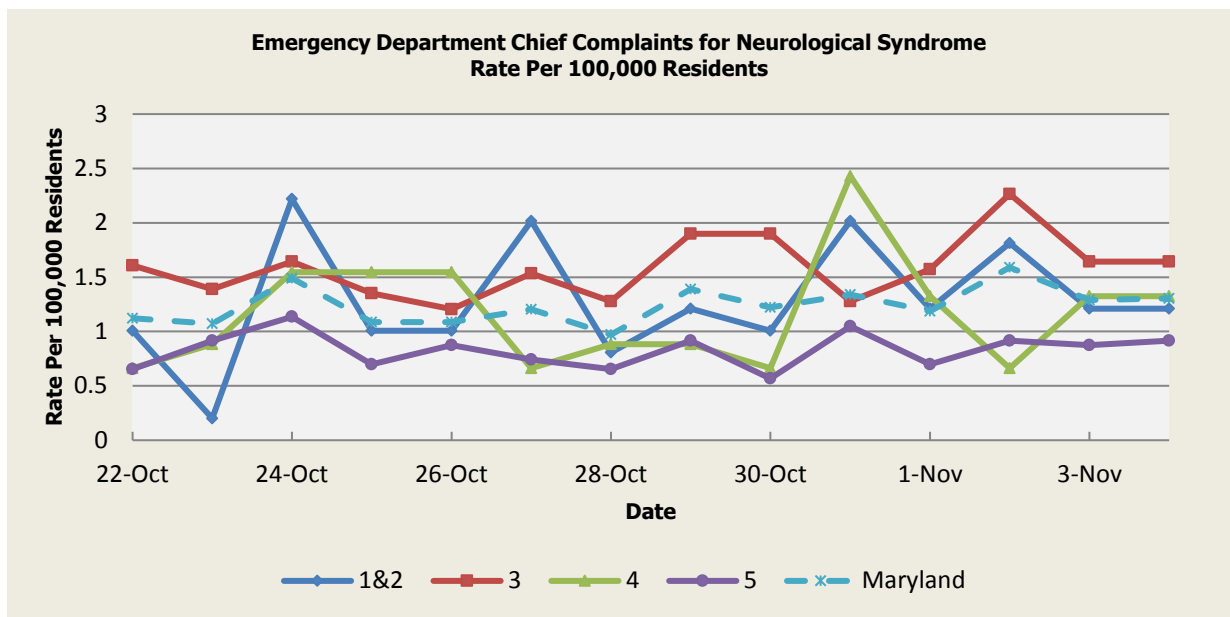


There were two (2) Rash Syndrome outbreak reported this week: two (2) outbreaks of Hand, Foot, and Mouth Disease associated with Daycare Centers (Regions 3,5).

Rash Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.16	1.64	1.65	0.96	1.34
Median Rate*	1.21	1.68	1.77	1.00	1.39

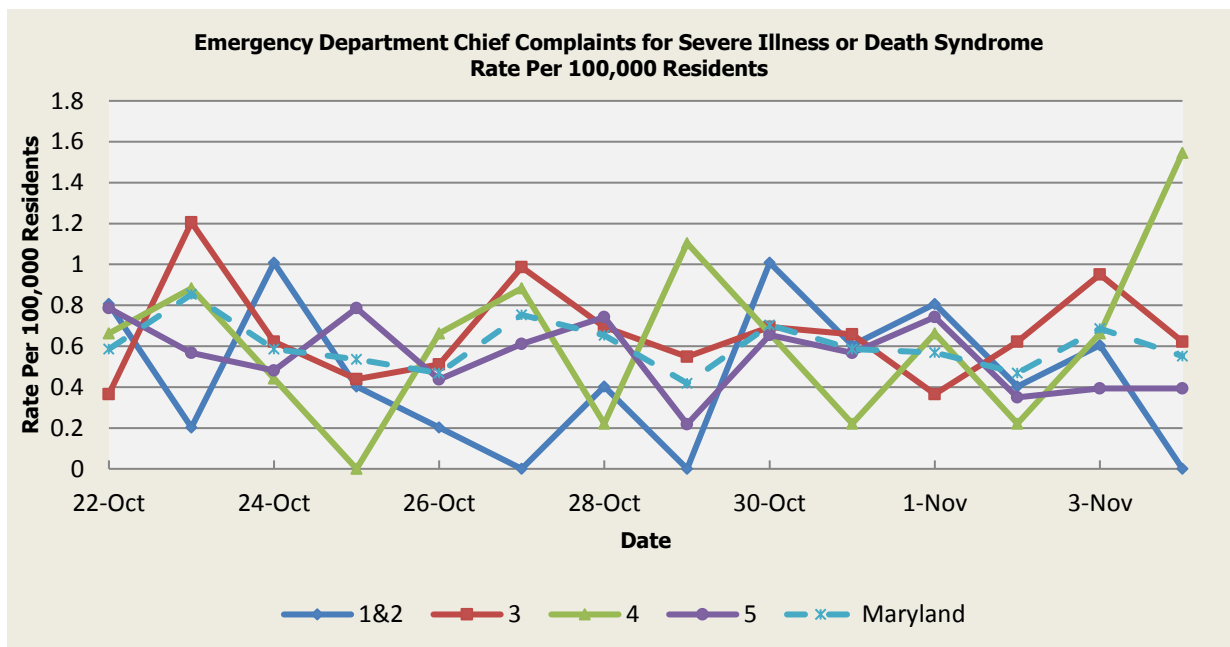
* Per 100,000 Residents



There were no Neurological Syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.61	0.74	0.64	0.47	0.62
Median Rate*	0.60	0.69	0.66	0.48	0.59

* Per 100,000 Residents

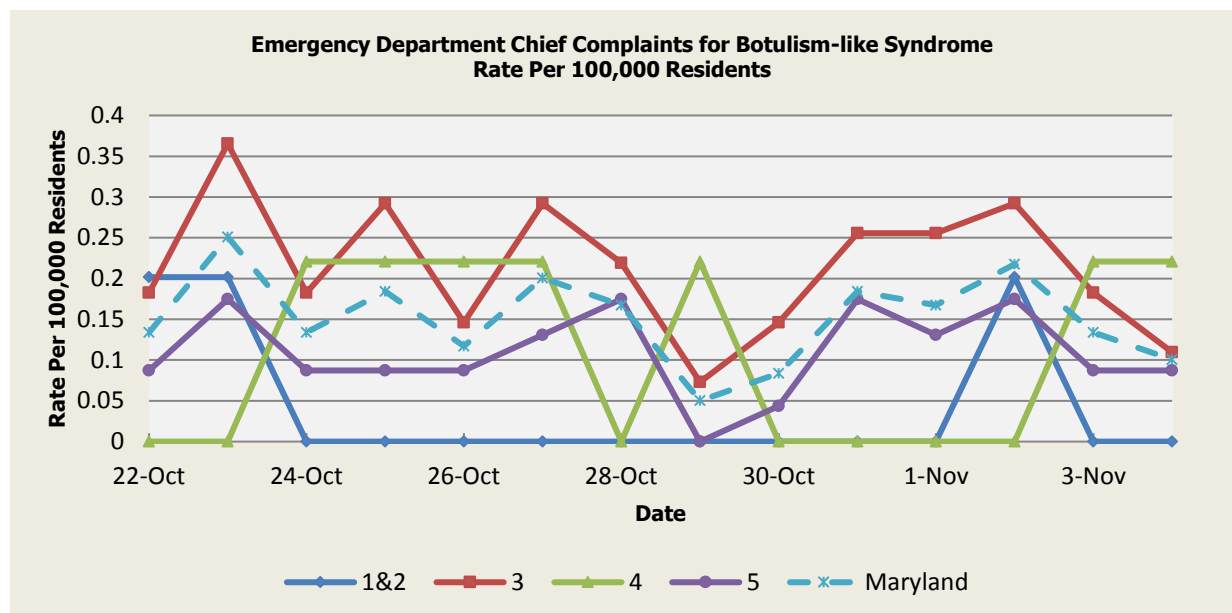


There were no Severe Illness or Death Syndrome outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.60	0.86	0.75	0.43	0.67
Median Rate*	0.60	0.91	0.66	0.44	0.70

* Per 100,000 Residents

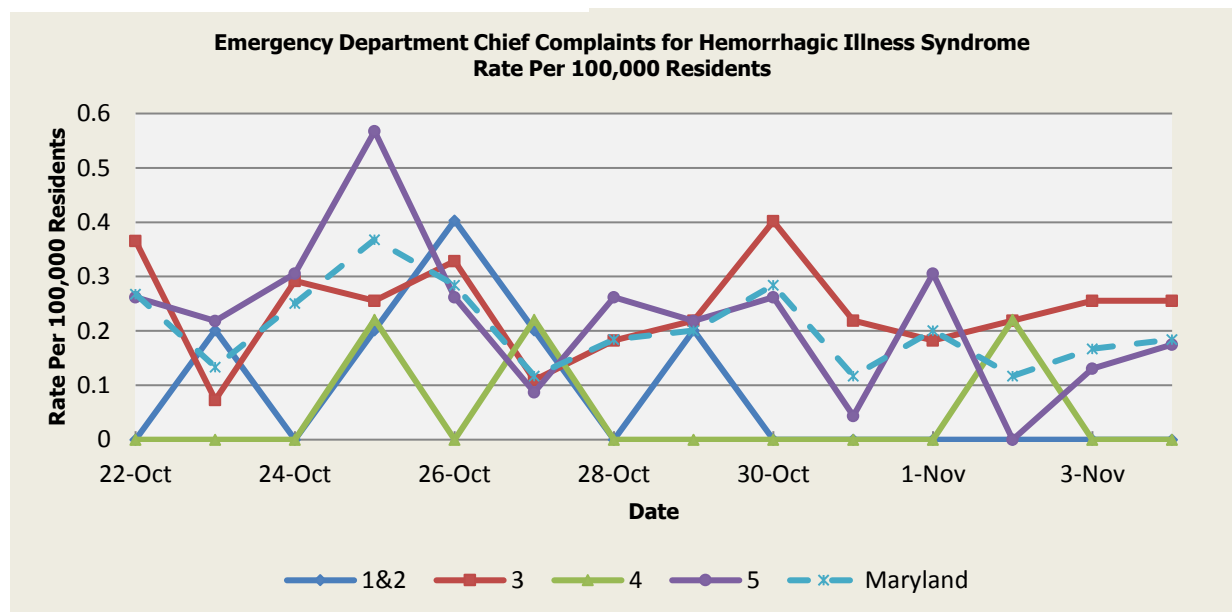
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 10/22 (Regions 1&2,3), 10/23 (Regions 1&2,3,5), 10/24 (Regions 3,4), 10/25 (Regions 3,4), 10/26 (Region 4), 10/27 (Regions 3,4,5), 10/28 (Regions 3,5), 10/29 (Region 4), 10/31 (Regions 3,5), 11/01 (Regions 3,5), 11/02 (Regions 1&2,3,5), 11/03 (Regions 3,4), 11/04 (Region 4). These increases are not known to be associated with any outbreaks.

Botulism-like Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.09	0.04	0.05	0.07
Median Rate*	0.00	0.07	0.00	0.04	0.05

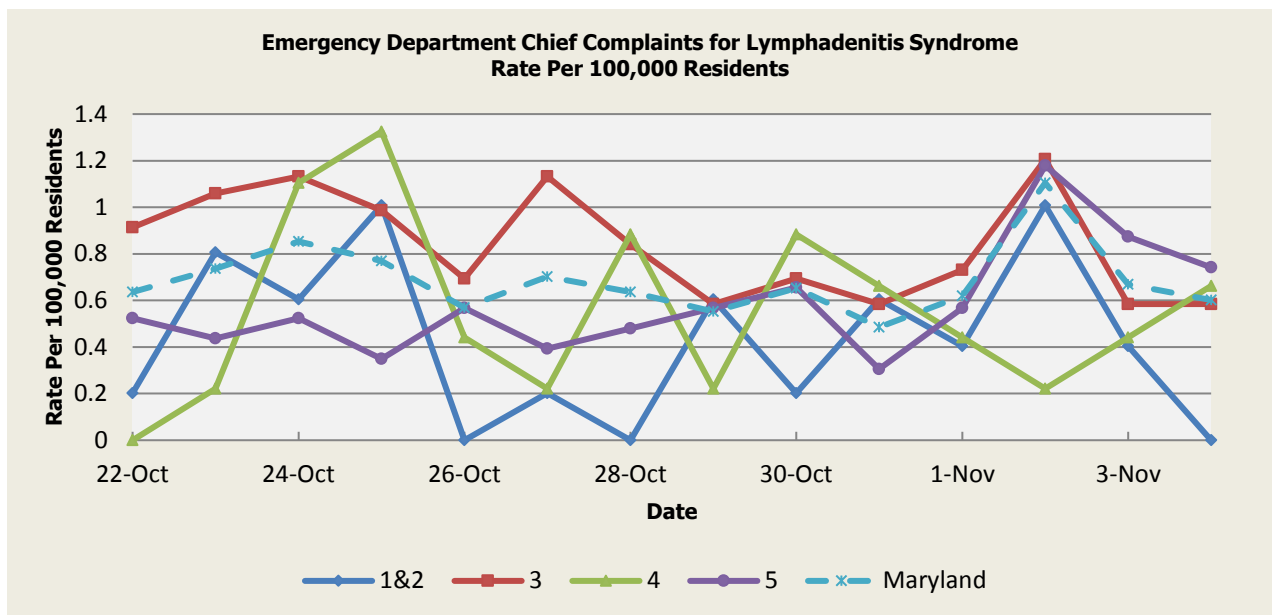
* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 10/22 (Regions 3,5), 10/23 (Regions 1&2,5), 10/24 (Regions 3,5), 10/25 (Regions 1&2,3,4,5), 10/26 (Regions 1&2,3,5), 10/27 (Regions 1&2,4), 10/28 (Region 5), 10/29 (Regions 1&2,5), 10/30 (Regions 3,5), 11/01 (Region 5), 11/02 (Region 4), 11/03 (Region 3), 11/04 (Region 3). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.12	0.03	0.09	0.09
Median Rate*	0.00	0.04	0.00	0.04	0.05

* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 10/23 (Regions 1&2,3), 10/24 (Regions 1&2,3,4), 10/25 (Regions 1&2,3,4), 10/27 (Region 3), 10/28 (Regions 3,4), 10/29 (Regions 1&2), 10/30 (Regions 4,5), 10/31 (Regions 1&2,4), 11/02 (Regions 1&2,3,5), 11/03 (Region 5), 11/04 (Regions 4,5). These increases are not known to be associated with any outbreaks.

Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.29	0.49	0.33	0.30	0.39
Median Rate*	0.20	0.40	0.22	0.26	0.33

* Per 100,000 Residents

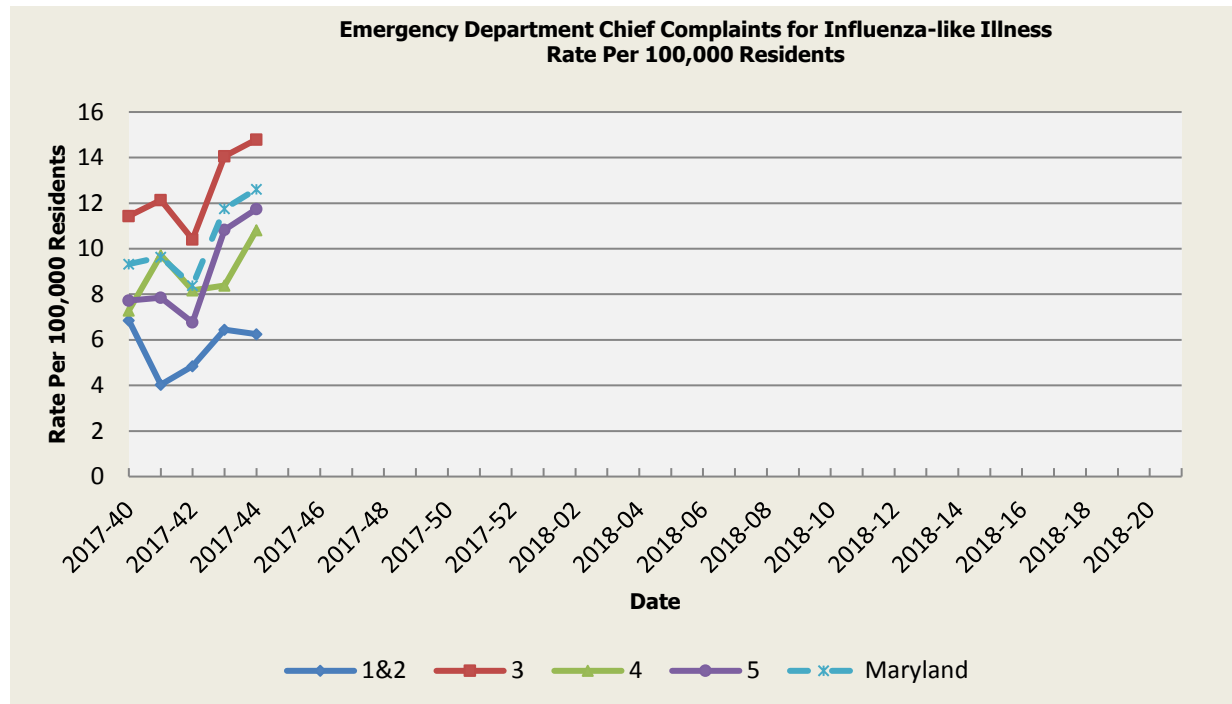
MARYLAND REPORTABLE DISEASE SURVEILLANCE

Condition	Counts of Reported Cases†					
	October			Cumulative (Year to Date)**		
Vaccine-Preventable Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Meningococcal disease	0	0	0	5	4.4	4
Measles	0	0	0	4	4.8	4
Mumps	0	0.4	0	23	42.8	21
Rubella	0	0.2	0	1	5.2	5
Pertussis	1	8	7	189	302.4	315
Foodborne Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Salmonellosis	1	9.8	10	771	851.2	850
Shigellosis	0	2.4	3	216	184.2	213
Campylobacteriosis	8	8	8	726	682.2	680
Shiga toxin-producing Escherichia coli (STEC)	2	2.6	2	174	138.2	129
Listeriosis	0	0.2	0	24	15.6	16
Arboviral Diseases	2017	Mean*	Median*	2017	Mean*	Median*
West Nile Fever	0	0	0	4	14.2	12
Lyme Disease	11	34.6	30	3072	2805.2	2621
Emerging Infectious Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Chikungunya	0	0.4	0	0	8.8	0
Dengue Fever	0	0.2	0	20	26.6	19
Zika Virus***	0	0.2	0	3	17.4	7
Other	2017	Mean*	Median*	2017	Mean*	Median*
Legionellosis	3	1.2	1	214	162.4	165
Aseptic meningitis	3	4.6	4	366	406.8	409

NEDSS data: Maryland National Electronic Disease Surveillance System (NEDSS). Baltimore, MD: Maryland Department of Health; 2017. † Counts are subject to change *Timeframe of 2011-2017**Includes January through current month. *** As of November 09, 2017, the total [Maryland Confirmed and Probable Cases of Zika Virus Disease and Infection](#) for 2017 is 62.

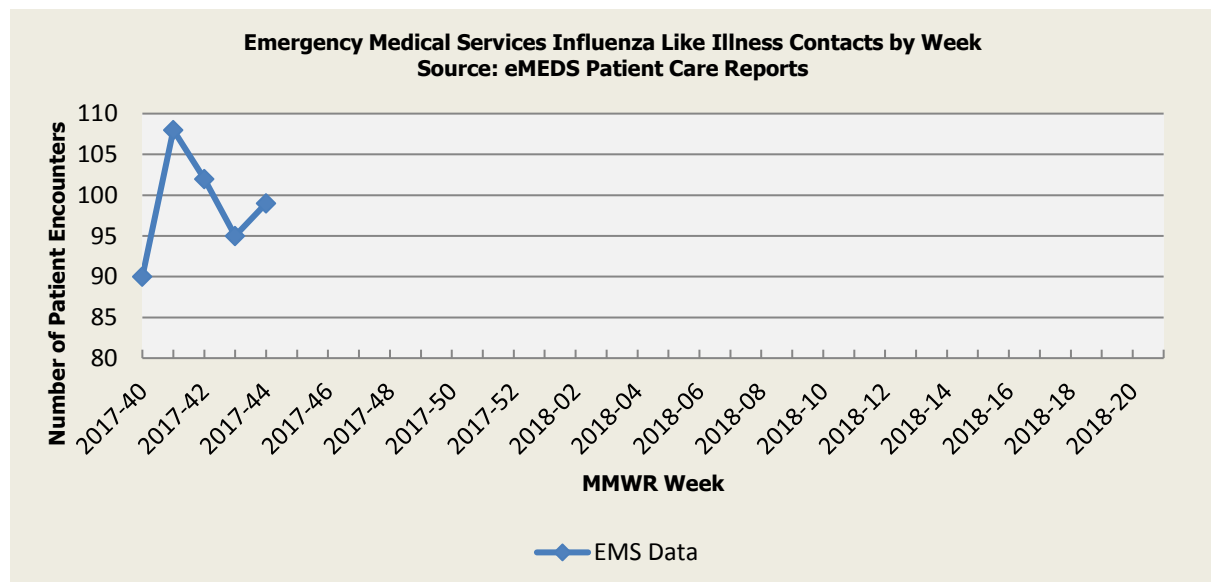
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 44 was: Sporadic Geographic Spread with Minimal Intensity.



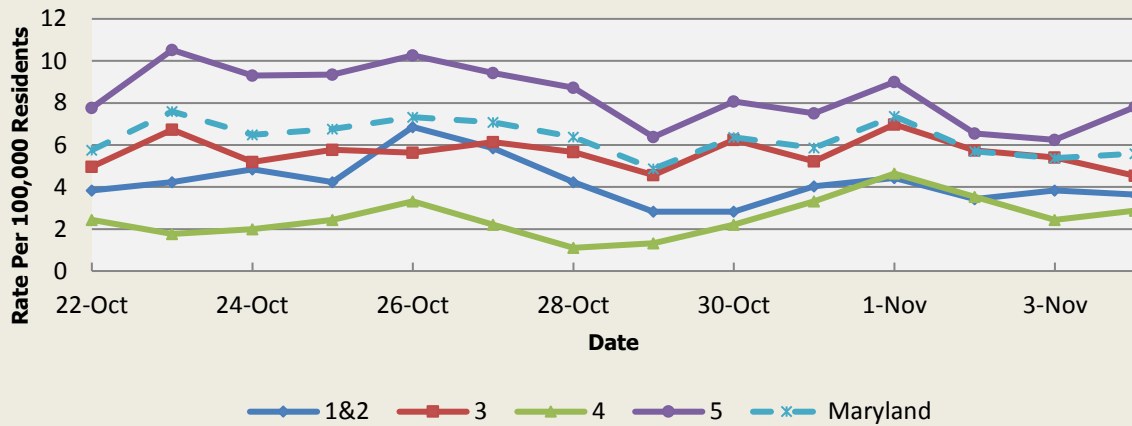
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.67	12.92	11.86	11.21	11.91
Median Rate*	7.66	9.63	9.05	8.51	9.00

* Per 100,000 Residents



Disclaimer on eMEDS flu related data: These data are based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. These data are reported for trending purposes only.

**Over-the-Counter Medication Sales Related to Influenza
Rate Per 100,000 Residents**

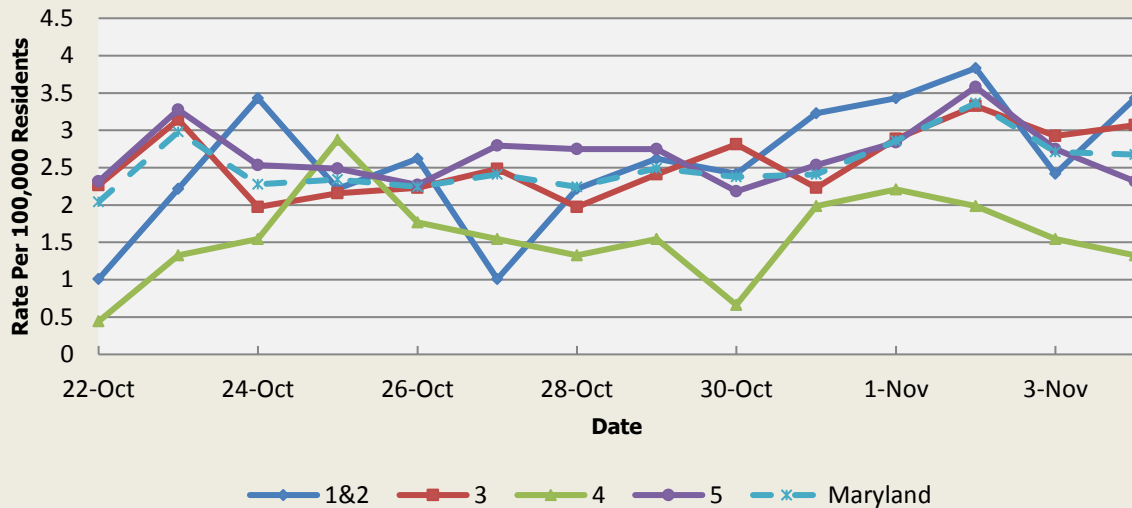


There was not an appreciable increase above baseline in the rate of OTC medication sales during this reporting period.

OTC Medication Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.52	4.58	2.55	7.89	5.61
Median Rate*	3.23	4.38	2.43	8.03	5.52

* Per 100,000 Residents

**Over-the-Counter Thermometer Sales
Rate Per 100,000 Residents**



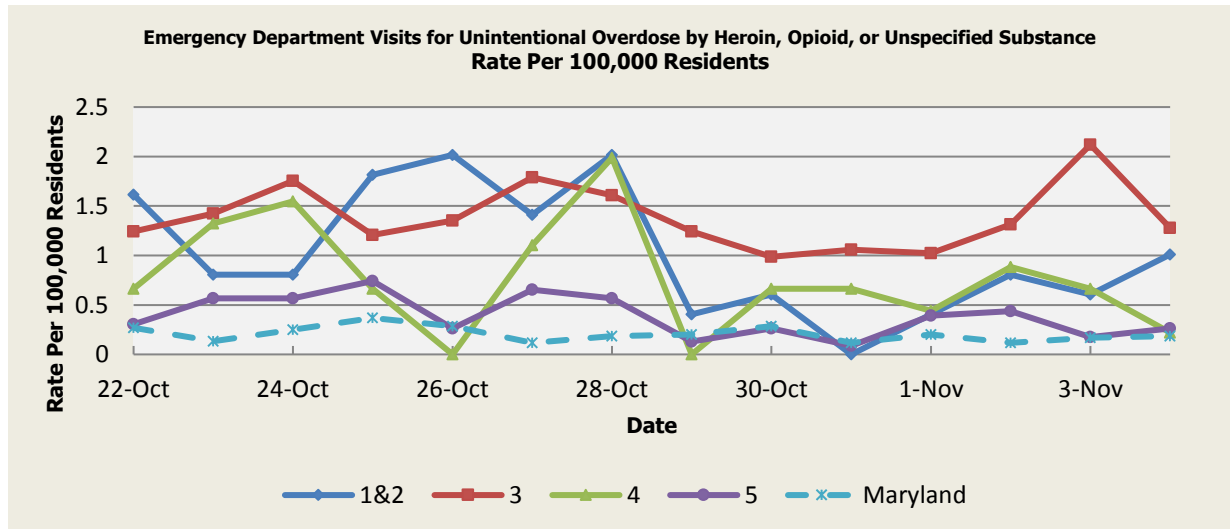
There was not an appreciable increase above baseline in the rate of OTC thermometer sales during this reporting period.

Thermometer Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.15	3.02	2.33	4.04	3.37
Median Rate*	3.02	3.03	2.43	4.06	3.36

* Per 100,000 Residents

SYNDROMIC OVERDOSE SURVEILLANCE

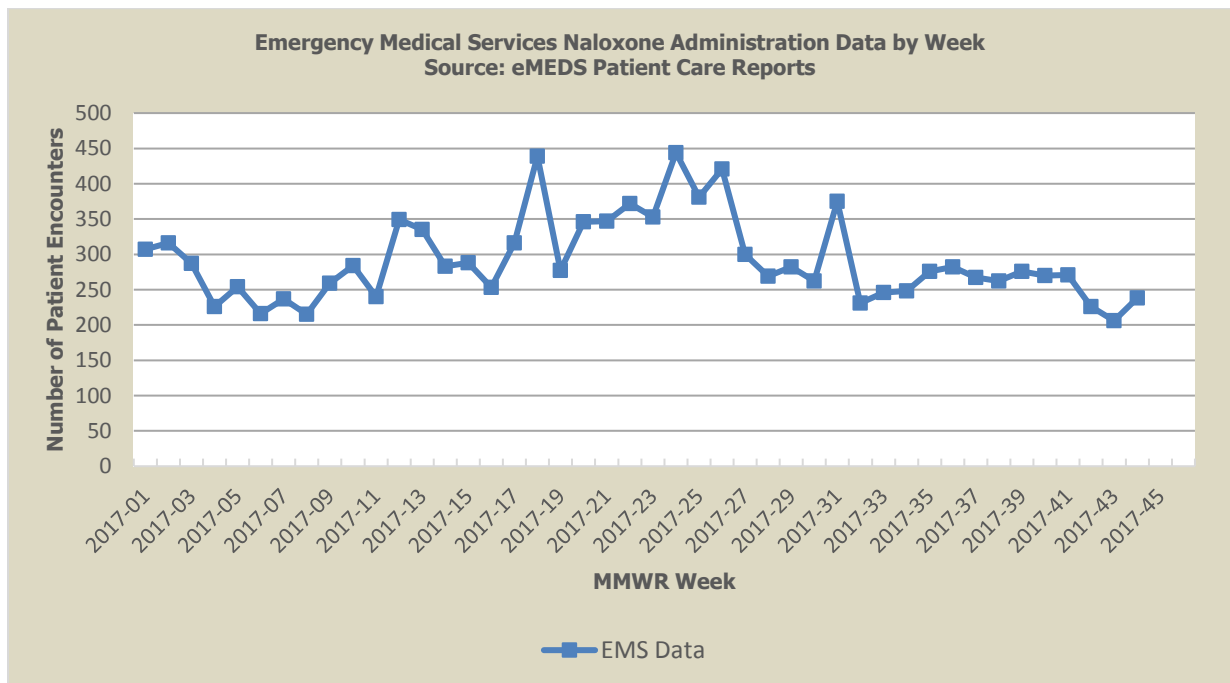
The purpose of this section is to characterize non-fatal ED visit trends for acute unintentional overdose by Heroin, Opioid or Unspecified substance among Maryland residents captured by ESSENCE data, including chief complaint and discharge diagnosis. ED visits that are identified as unintentional overdose by Heroin, Opioid or Unspecified substance include those with medical and non-medical use of a prescription Opioid or where the substance is not specified, given evidence that the majority of fatal overdoses are Opioid-related.



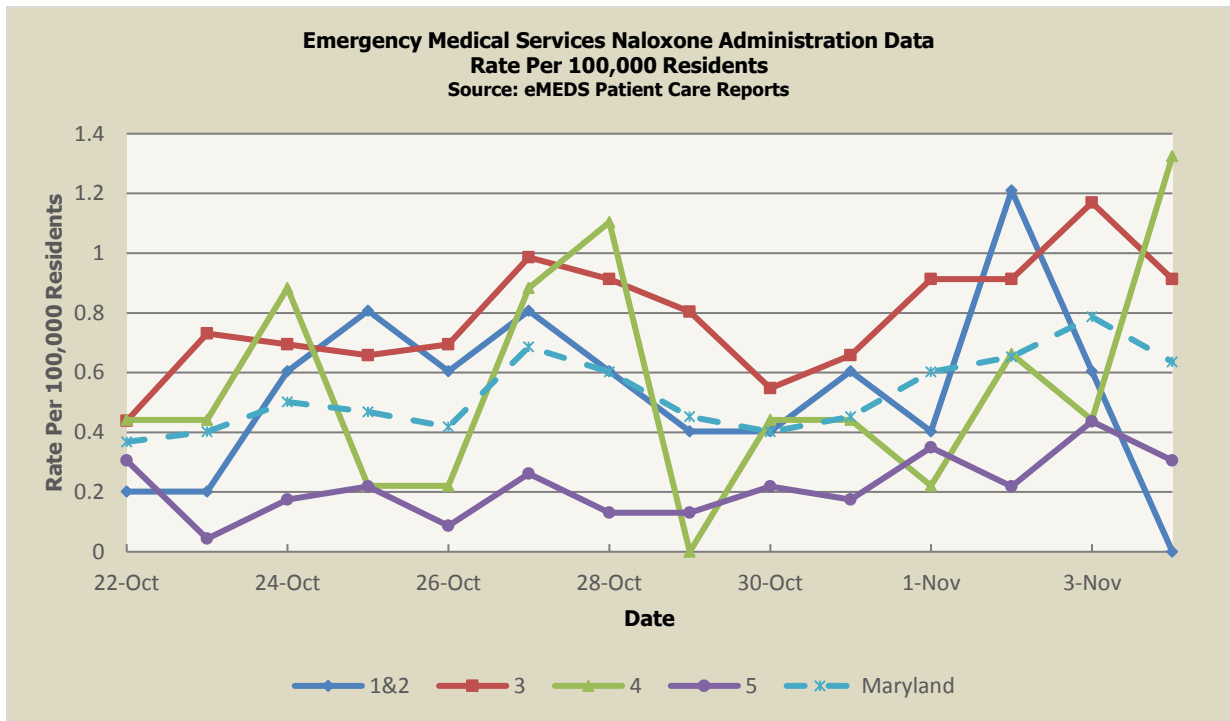
Disclaimer on ESSENCE Overdose related data: ESSENCE chief complaint and discharge diagnosis query for overdose-related illness includes but is not limited to the following terms: heroin, opioid, speedball, dope, fentanyl, naloxone, narcan, and overdose.

Non-fatal Overdose ED Visit Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.30	0.39	0.35	0.14	0.28
Median Rate*	1.01	1.32	1.10	0.48	0.99

* Per 100,000 Residents



Disclaimer on eMEDS naloxone administration related data: These data are based on EMS Pre-hospital care reports where the EMS provider has documented that they administered naloxone. The administration of naloxone is based on the patient's signs and symptoms and not on any diagnostic tests. These data are reported for trending purposes only.



Disclaimer on eMEDS Naloxone administration related data: These data are based on EMS Pre-hospital care reports where the EMS provider has documented that they administered naloxone. The administration of naloxone is based on the patient's signs and symptoms and not on any diagnostic tests. These data are reported for trending purposes only.

EMS Naloxone Administration Data Baseline Data January 1, 2017 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.30	0.39	0.35	0.14	0.28
Median Rate*	1.01	1.32	1.10	0.48	0.99

* Per 100,000 Residents

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. Presently, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national, and global levels are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of September 27, 2017, the WHO-confirmed global total (2003-2017) of human cases of H5N1 avian influenza virus infection stands at 860, of which 454 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

AVIAN INFLUENZA

H5N8 (BULGARIA), 7 Nov 2017, A total of 4 bird flu outbreaks have been registered so far across Bulgaria. They are in the northeastern region of Dobrich and the southeastern regions of Haskovo, Sliven and Yambol, the Bulgarian Food Safety Agency said in a press release. Read More: <https://www.promedmail.org/post/5428919>

HUMAN AVIAN INFLUENZA

H5N8 (RUSSIA), 4 Nov 2017, Russian scientists confirmed the possibility of asymptomatic human infection with the avian influenza H5N8 virus, which was previously observed only in birds. This confirms that the virus has crossed an interspecies barrier and acquired new properties that may be potentially unsafe for humans, RIA Novosti reported referring to the head of Rospotrebnadzor Anna Popova. Read More: <https://www.promedmail.org/post/5419594>

NATIONAL DISEASE REPORTS

E. coli EHEC (CALIFORNIA), 4 Nov 2017, Approximately 69 Marine recruits [remain] sickened in an E. coli outbreak at Marine Corps Recruit Depot San Diego. Up to 9 out of 17 recruits getting treatment at off-base medical facilities have developed a complication known as hemolytic uremic syndrome (HUS) due to the outbreak, according to officials. Read More: <https://www.promedmail.org/post/5424631>

HEPATITIS A (MICHIGAN), 6 Nov 2017, Since the beginning of the outbreak in August 2016, public health response has included increased healthcare awareness efforts, public notification and education, and outreach with vaccination clinics for high-risk populations. No common sources of food, beverages, or drugs have been identified as a potential source of infection. Transmission appears to be through direct person-to-person spread and illicit drug use. <https://www.promedmail.org/post/5426879>

HEPATITIS A (CALIFORNIA), 7 Nov 2017, the San Diego County public health officer declared a local public health emergency due to the ongoing hepatitis A outbreak in the county. The outbreak is being spread person-to-person and through contact with fecally contaminated environments. Read More: <https://www.promedmail.org/post/5429761>

INTERNATIONAL DISEASE REPORTS

PLAGUE(MADAGASCAR), 4 Nov 2017, The spread of a plague outbreak in Madagascar may finally be slowing down. The epidemic, which began in August 2017, has taken the lives of 133 people and resulted in 1836 suspected or confirmed cases. However, the occurrence of new cases is finally decreasing, according to a report released [Wed 1 Nov 2017] by the United Nations Office for the Coordination of Humanitarian Affairs. Read More: <https://www.promedmail.org/post/5422504>

LEPTOSPIROSIS (CANADA), 5 Nov 2017, Leptospirosis is a bacterial infection that affects the liver or kidneys. It can be fatal for animals if it progresses, and the signs can be difficult to spot. The highly contagious infection can also be passed on to humans. Dr. Tricia Horsman says there are currently dogs sick with the infection who are being cared for at the Metro Animal Emergency Clinic in a closed off area. Read More: <https://www.promedmail.org/post/5425043>

SHIGELLOSIS (ARGENTINA), 5 Nov 2017, At least 88 students and teachers at a school in San Pedro de Colalao in northern Argentina have been sickened with *Shigella flexneri* infections, according to a La Gaceta report (computer translated). According to director of Epidemiology of Neuquén Province, Dr. Rogelio Cali, the affected students and teachers presented with vomiting, profuse diarrhea (some with blood), abdominal pain, high fever and malaise. At least 2 children required hospitalization. Read More: <https://www.promedmail.org/post/5425098>

MERS-CoV (ISRAEL), 5 Nov 2017, Studies, performed by the Virology Section in the Kimron Veterinary Institute, applying ELISA and VNT methods, have demonstrated the presence of antibodies in dromedary camels in Israel. Read More: <https://www.promedmail.org/post/5425773>

JAPANESE ENCEPHALITIS (INDIA), 6 Nov 2017, Child deaths at BRD Medical College in Gorakhpur have come back to haunt the Uttar Pradesh government 3 months after a similar incident created a national uproar. BRD Hospital's head of department of community medicine Dr. DK Srivastava said 30 children died within 48 hours. Read More: <https://www.promedmail.org/post/5426319>

MERS-COV (OMAN), 6 Nov 2017, The patient is a 27 yr old male from the North Sharqiyah governorate who sought medical help on [22 Oct 2017] at a health center and again on [24 Oct 2017] at a private clinic before finally being admitted to a hospital on 28 Oct 2017. His presenting symptoms include fever, cough and dyspnea (shortness of breath). Bilateral pneumonia was confirmed. Read More: <https://www.promedmail.org/post/5427278>

LEGIONELLOSIS (PORTUGAL), 7 Nov 2017, A Legionella outbreak at Lisbon's Sao Francisco Xavier has so far infected a total of 26 patients. The Health Minister admitted last night that "something had gone wrong", but told reporters that he was confident the hospital had been following the best practices. The disease is believed to have spread through the hospital's water system, with officials ordering a full commission of inquiry into the reasons for the outbreak of Legionnaire's disease. Read More: <https://www.promedmail.org/post/5428417>

UNDIAGNOSED DIE-OFF (RUSSIA), 7 Nov 2017, Researchers are now adding the death of more than a hundred seals in Russia to their growing list of animal mass mortality events around the world. Russian officials are investigating the deaths of 141 Baikal earless seals after experts say they starved to death. Read More: <https://www.promedmail.org/post/5426981>

YELLOW FEVER (NIGERIA), 7 Nov 2017, The outbreak of yellow fever in Nigeria has evolved. The index case was a 7-year-old girl from Oro-Ago community in Ifelodun Local Government Area (LGA), Kwara State who developed acute jaundice syndrome. Specimens from the case-patient tested positive for yellow fever virus at the Lagos University Teaching Hospital (LUTH) laboratory by polymerase chain reaction. The specimens, subsequently referred to the Institute Pasteur Dakar (IPD), confirmed yellow fever virus infection using plaque reduction neutralization test (PNRT). Read More: <https://www.promedmail.org/post/5428288>

MARBURG VIRUS DISEASE (UGANDA), 8 Nov 2017, Three cases that have been previously reported (2 confirmed and one probable case, the latter being the index case) have died, thus, resulting in an overall case-fatality rate of 100 percent. The cases were epidemiologically linked and come from one family. Read More: <https://www.promedmail.org/post/5430664>

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.health.maryland.gov/> or follow us on Facebook at www.facebook.com/MarylandOPR.

More data and information on influenza can be found on the MDH website:
<http://phpa.health.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.health.maryland.gov>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

Prepared By:

Office of Preparedness and Response, Maryland Department of Health
300 W. Preston Street, Suite 202, Baltimore, MD 21201
Fax: 410-333-5000

Adejare (Jay) Atanda, DDS, MPH, CPH
Biosurveillance Epidemiologist
Office: 410-767-5668
Email: Adejare.Atanda@maryland.gov

Jessica Goodell, MPH
Temporary Epidemiology Field Assignee, CDC
Office: 410-767-6745
Email: Jessica.Goodell@maryland.gov

Kamilla Keldiyarova
Intern
Office of Preparedness and Response
Email: Kamilla.Keldiyarova@maryland.gov

Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	((([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County

